Breakthrough Research Allows Replication Of Brain Cells To Cure Alzheimer's

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For the first time in the history and to the astonishment of many, the researchers had recently created an "Alzheimer's in a Dish". This was a petri dish with actual human brain cells, which develop the exact same structure of Alzheimer's. Doing so allowed them to better study Alzheimer's and the drugs that can be used to treat the disease. This was a great achievement in the course of curbing this disease. This is because earlier, the scientists could only manage lab rats, whose brains developed an imperfect form of the disease. The idea of growing Alzheimer's in a lab for testing had been thought of before and the scientists had used a liquid instead of the gel. The brain cells did not grow in the liquid, while they grew perfectly with a mixture of chemicals in the gel.

According to Rudolph E. Tanzi, the plan to grow a replca of brain cells was suggested by one of his colleagues, Doo Yeon Kim. He proposed to grow human brain cells in a gel, where they would grow similar to the brain cells inside a human and form networks as in an actual brain. These neurons were then infected with genes carrying the Alzheimer's disease. Within a matter of weeks, hard clumps (also known as plaques) were observed on the cells. This procedure offers proper demonstration of how the disease spreads and how any drugs impact the disease. Of course, the petri dish lacks many crucial elements, which would be present in a real brain; for example the immune system, which starts to impact the disease. Hence, it might become necessary to develop all these artificial elements in the petri dish.

He also reports, that the drugs that are being used to prevent the disease, prevent both, the plaques and the tangles in the petri dish. However, their effectiveness on humans is still unknown. One of the drugs which was tested on a patient failed, because the drug was too toxic. He added that an enzyme makes up the tangles after the plaques. Elimination of that enzyme formed only plaques, and therefore, this enzyme will be one of the targets of the new drug.

A viable model for cure is still lacking for Alzheimer's. It has become the Achilles' heel for the medical world. Many doctors have presented a variety of views and ideas regarding Alzheimer's and its cure, but so far no theory has been proven flawless. Hence, with the passing days, it is becoming gravely important to come up with a cure.

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